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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,564	09/16/2003	Jon W. Bossoli	2003P00133 US01	2844

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EXAMINER

AURORA, REENA

ART UNIT PAPER NUMBER

2862

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,564

Applicant(s)

BOSSOLI ET AL.

Examiner

Reena Aurora

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 32 is/are rejected.
- 7) ☒ Claim(s) 1, 2, 13 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/16/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1 – 32 are presented for examination.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show a plurality of pole pieces insertable in the tubular magnet as claimed in claims 1, 2, 13, 23 and also as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

For the purpose of examination, based on the specification and drawings, examiner is interpreting the claimed limitation "a plurality of pole pieces insertable in the generally tubular magnet" as that a plurality of pole pieces is a pole piece assembly having a cylindrical core and pole plate and one element of the pole piece assembly such as cylindrical core is insertable in the tubular magnet.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Luetzow (5,321,355).

As to claim 1, Luetzow discloses an active position sensor such as speed sensor (col. 1, lines 17 - 19) comprising a generally tubular magnet (118, fig. 12, 17) that generates a magnetic field; and a plurality of pole pieces (120) insertable in the generally tubular magnet (118) having respective dimensions for varying the magnetic field (col. 2, lines 37 – 44 and fig. 17).

As to claim 2, Luetzow discloses an active position sensor such as speed sensor (col. 1, lines 17 - 19) comprising a sense element (16, fig. 12, 17) for sensing a magnetic field; a generally tubular magnet (118) that generates a magnetic field; and a

Art Unit: 2862

plurality of pole pieces (120) insertable in the generally tubular magnet (118) having respective dimensions for varying the magnetic field (col. 2, lines 37 – 44 and fig. 17).

As to claim 13, Luetzow discloses an active position sensor such as speed sensor (col. 1, lines 17 - 19) comprising a generally tubular magnet (118, fig. 12, 17); and a plurality of pole pieces (120) insertable in the generally tubular magnet (118) having respective dimensions for varying the magnetic field (col. 2, lines 37 – 44 and fig. 17).

As to claim 23, Luetzow discloses an active position sensor such as speed sensor (col. 1, lines 17 - 19) wherein coupling a plurality of pole pieces (120, fig. 12 and 17) inserted into a generally tubular magnet (118); varying dimensions of the plurality of pole pieces (dimension of 116 is different from the dimension of 120); and generating a varying magnetic field via the plurality of pole pieces (col. 2, lines 37 – 44 and fig. 17).

As to claim 3, Luetzow discloses that the sense element (16, fig. 12) comprises a Hall effect sensor (col. 9, line 31).

As to claims 4, 14 and 24, Luetzow discloses that the tubular magnet (118, fig. 12) comprises a shape of a cylinder (col. 9, line 33).

As to claims 5, 15 and 25, Luetzow discloses plurality of pole pieces comprises a cylindrical core (120, fig. 12 and 17) coupled perpendicularly to a pole plate (116) (col. 9, lines 31 - 38).

As to claims 6, 16 and 26, Luetzow discloses the cylindrical core (120, fig. 17) is positioned coaxially in a center of the tubular magnet (118) (col. 9, lines 35 - 38).

Art Unit: 2862

As to claims 7, 17 and 27, Luetzow discloses the pole plate (116, fig. 17) couples to a pole of the tubular magnet (118).

As to claims 8, 18 and 28, Luetzow discloses that the cylindrical core is cylindrically shaped (120, fig. 7) (col. 9, line 36).

As to claims 9, 19 and 29, Luetzow discloses pole plate (116, fig. 12) is cylindrically shaped (magnet 118 is cylindrical in shape and the pole piece has the same shape as that of the magnet).

As to claims 10, 10 and 30, Luetzow discloses that the cylindrical core (12, fig. 1 and 120, fig. 12) comprises a soft, highly permeable magnetic material (cold rolled steel which is a highly permeable magnetic material) (col. 5, lines 49 – 52 and col. 9, lines 35 - 36).

As to claims 11, 21 and 31, Luetzow discloses that the pole plate (116) comprises a soft, highly permeable magnetic material (col. 10, lines 27 - 30).

As to claims 12, 22 and 32, Luetzow discloses that the generally tubular magnet is polarized (118, fig 17).

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kaste (6,703,830) is cited for its disclosure of a tunable magnetic device for use in a proximity sensor.

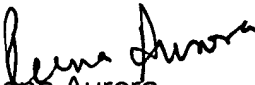
Vig et al. (6,278,269) is cited for its disclosure of a magnetic structure.

Art Unit: 2862

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Reena Aurora
Examiner